Abstract

The object of the present invention is to provide compiling technology to compile even source programs written in an object-oriented programming language so as to enable parallel processing. In order to realize parallel processing, in addition to the object 1000 specified by the source program, objects of said class for parallelization processing 1010, 1020 must be generated, for class variables specified by parallelization directive and class-type variables contained in execution statements to be executed in parallel. In addition, on completion of parallel processing, objects for parallelization processing are destroyed. For this reason, if execution statements to be executed parallel or the parallelization directive includes a class-type variable, the compiler generates an instruction to call a construction instruction routine for an object of the class before the execution statements to be executed in parallel or the execution statements to be parallelized by the parallelization directive, and generates an instruction to call a destruction instruction routine for an object of the class after the execution statements to be executed in parallel or the execution statements to be parallelized by the parallelization directive.